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Ottawa ankle rule in predicting severity of acute ankle ligament injury

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Introduction: The Ottawa ankle rules (OAR) have been proven a useful tool in excluding fracture of the ankle and forefoot, with a systematic review reporting an almost 100% sensitivity. However, there are no papers which have reported acceptable tools as a predictor of severity of acute ankle ligamentous injury. We audited our referral pathway to our soft tissue injury clinic, to assess the relationship between the OAR and severity of ligament injuries.

Materials and method: 16 patients who had solely soft tissue ankle injury had OAR applied. Instability of the ankle was assessed clinically by the anterior drawer and talar tilt tests. A 2×2 table analysis was made of the results.

Results: The OAR screening test had a sensitivity of 69%, specificity 67% and an accuracy of 69%. Of the 16 patients 10 met the requirement for further investigation using the OAR. 13 patients were felt to have significant ligament injuries based on clinical examination.

Discussion and conclusion: Approximately 7/10 patients who have an ankle injury requiring radiographic investigation but no fracture, have significant ligamentous injury. Thus positive OAR and negative radiographic assessments are a reasonable determinant for referral from an Accident and Emergency setting, particularly as these assessments have already been performed to exclude a fracture. Further study is planned to further increase accuracy of assessment of ankle soft tissue injury

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Outcome of ilizarov frames in parasuicide patients

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Introduction: The use of Ilizarov frames is contraindicated in patients with psychiatric conditions. This is thought to be due to non compliance. We present our experience of treating five fractures with the Ilizarov frame in four patients who sustained their injuries through parasuicide.

Method: Retrospective case series on patients operated on by a single surgeon at our institution.

Four parasuicide patients, one had bilateral Ilizarov frames. All five fractures were comminuted distal tibia (pilon). AO Classification 43-B3.3, two were 43-C3.2 and a futher two were 43-C3.3. Four out of five fractures were open. Outcome was based on functional score (Olerud and Molander); SF 12 and radiological union.

Results: There were three females and one male. Mean age thirty-one years. Of the five fractures, three united successfully, mean time to union was eight months; one achieved a malunion and one has gone on to a non-union.

Discussion: Our experience suggests complex fractures can be treated favourably with circular frames in parasuicide patients. The patients were generally compliant with frame care and the out-

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Pelvic supports—potential source of cross-infection in hip surgery

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Introduction: Anterior and posterior hip supports are employed widely in hip surgery performed with patient in lateral position. Surfaces of these supports usually are in direct contact with the patient skin around the groin and buttock areas. The anterior support abuts against the pubic symphysis and the posterior against the sacrum of the patient. Repeated use of same supports, in trauma and elective surgeries, can be a source of cross-infection and wound contamination as bacterial growth on fomites and their penetration of surgical drapes is reported in literature. We examined the contamination of these supports in our institution.

Materials and methods: Sterile swabs were used to take samples from six anterior and posterior hip supports each (total 12 supports), employed in orthopaedic procedures. Supports were interchangeably used for both elective and trauma surgery. Swabs were obtained using sterile gloves and mask from two sites on patient facing side of each support and were cultured and incubated at 37 °C in Columbia Blood Agar. Two random supports were cleaned using Sani Cloth Detergent non-alcoholic wipes and two samples were obtained from each support (total four swabs), 5 min later.

Results: 71% sampled supports were contaminated, with Coagulase-negative Staphylococcus, including Staph Epidermidis, being the most commonly grown organism with average of 5.3 colony forming units (CFU) (0–38) per swab. There were no growths of methicillin-resistant Staphylococcus aureus (MRSA) and Pseudomonas. 5 min after cleaning two of above supports with detergent wipes, there was a 100% reduction in their contamination with no growth from the four swabs.

Conclusion: Coagulase-negative Staphylococci like Staph epidermidis, reside on the hip supports presently used in the orthopaedic theatre. Staph epidermidis is believed to be one of the most predominant infecting organisms in total hip replacement surgery. Surprisingly, there were no MRSA grown from our samples, considering the fact that supports were used interchangeably between trauma and elective surgeries. We attribute this to the small sample size of our study. Trauma patients are not necessarily subjected to nasal and groin MRSA swabs pre-operatively in contrast to patients undergoing elective hip surgery who are rigorously swabbed for the same. Interchangeable use of hip supports defeats the purpose of this practice. Hip supports could be a source of surgical site infection, considering their proximity to the operative site and ability of bacteria to penetrate certain surgical drapes, especially in presence of wetness. We recommend strict cleaning of these supports for 5 min with the detergent wipes before and between every orthopaedic hip case. Where feasible, the supports used should be different for elective and trauma cases.

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